What is claimed is:

1. A wavelength path switching node apparatus that is used in an optical communication network that performs multiplex transmissions by allocating a plurality of traffic items to a plurality of wavelength paths using a wavelength division multiplexing transmission scheme, comprising:

a buffer that stores packets of input traffic;

a packet transmission control section that fetches packets from the buffer, and, with top priority given to a semifixed initial path, distributes the packets to the initial path and to dynamically allocated additional paths;

a control section that controls allocations of the additional paths based on distribution states of packet units in the packet transmission control section; and

a wavelength path switching section that switches wavelength paths in accordance with the allocation control of the additional paths.

2. A wavelength path switching node apparatus that is used in an optical communication network that performs multiplex transmissions by allocating a plurality of traffic items to a plurality of wavelength paths using a wavelength division multiplexing transmission scheme, comprising:

a monitoring section that monitors packets of input traffic that are distributed, with top priority given to a semifixed initial path, to the initial path and to dynamically allocated additional paths;

a control section that controls allocations of the additional paths based on distribution states of packet units obtained by the monitoring; and

a wavelength path switching section that switches wavelength paths in

accordance with the allocation control of the additional paths.

3. A wavelength path switching node apparatus that is used in an optical communication network that performs multiplex transmissions by allocating a plurality of traffic items to a plurality of wavelength paths using a wavelength division multiplexing transmission scheme, comprising:

a monitoring section that monitors packets of input traffic that are distributed, with top priority given to a semifixed initial path, to the initial path and to dynamically allocated additional paths;

a first control section that controls allocations of the additional paths based on distribution states of packet units obtained by the monitoring;

a first wavelength path switching section that switches wavelength paths in accordance with the allocation control of the additional paths by the first control section;

a buffer that stores packets of the input traffic;

a packet transmission control section that fetches packets from the buffer, and, with top priority given to the initial path, distributes the packets to the initial path and to the additional paths;

a second control section that controls allocations of the additional paths based on distribution states of packet units in the packet transmission control section; and

a second wavelength path switching device that switches wavelength paths in accordance with the allocation control of the additional paths by the second control section.

4. The wavelength path switching node apparatus according to claim 1, wherein the packet transmission control section distributes packets to the additional paths in

accordance with a predetermined order of priority.

5. The wavelength path switching node apparatus according to claim 3, wherein the packet transmission control section distributes packets to the additional paths in accordance with a predetermined order of priority.

6. The wavelength path switching node apparatus according to claim 1, wherein the control section allocates at least one reserve additional path when packets are being distributed.

7. The wavelength path switching node apparatus according to claim 2, wherein the control section allocates at least one reserve additional path when packets are being distributed.

8. The wavelength path switching node apparatus according to claim 3, wherein the control section allocates at least one reserve additional path when packets are being distributed.

9. The wavelength path switching node apparatus according to claim 4, wherein the control section allocates at least one reserve additional path when packets are being distributed.

10. The wavelength path switching node apparatus according to claim 5, wherein the control section allocates at least one reserve additional path when packets are being distributed.

11. A wavelength path allocation method for a wavelength path switching node apparatus that is used in an optical communication network that performs multiplex transmissions by allocating a plurality of traffic items to a plurality of wavelength paths using a wavelength division multiplexing transmission scheme, comprising:

a step in which packets of input traffic are stored in a buffer;

a packet distributing step in which packets are fetched from the buffer, and, with top priority given to a semifixed initial path, the packets are distributed to the initial path and to dynamically allocated additional paths; and

a step in which allocations of the additional paths are controlled based on distribution states of packet units in the packet distributing step.

12. A wavelength path allocation method for a wavelength path switching node apparatus that is used in an optical communication network that performs multiplex transmissions by allocating a plurality of traffic items to a plurality of wavelength paths using a wavelength division multiplexing transmission scheme, comprising:

a step in which packets of input traffic that are distributed, with top priority given to a semifixed initial path, to the initial path and to dynamically allocated additional paths are monitored; and

a step in which allocations of the additional paths are controlled based on distribution states of packet units obtained by the monitoring.

13. A wavelength path allocation method for a wavelength path switching node apparatus that is used in an optical communication network that performs multiplex transmissions by allocating a plurality of traffic items to a plurality of wavelength paths

using a wavelength division multiplexing transmission scheme, comprising:

a step in which packets of input traffic that are distributed, with top priority given to a semifixed initial path, to the initial path and to dynamically allocated additional paths are monitored;

a first control step in which allocations of the additional paths in a first wavelength path switching section are controlled based on distribution states of packet units obtained by the monitoring;

a step in which packets of input traffic are stored in a buffer;

a packet distributing step in which packets are fetched from the buffer, and, with top priority given to the initial path, the packets are distributed to the initial path and to the additional paths; and

a second control step in which allocations of the additional paths in a second wavelength path switching section are controlled based on distribution states of packet units in the packet distributing step.

14. The wavelength path allocation method according to claim 11, wherein, in the packet distributing step, the packets are distributed to the additional paths in accordance with a predetermined order of priority.

15. The wavelength path allocation method according to claim 13, wherein, in the packet distributing step, the packets are distributed to the additional paths in accordance with a predetermined order of priority.

16. The wavelength path allocation method according to claim 11, wherein, in the control step, at least one reserve additional path is allocated when packets are being

distributed.

17. The wavelength path allocation method according to claim 12, wherein, in the control step, at least one reserve additional path is allocated when packets are being distributed.

18. The wavelength path allocation method according to claim 13, wherein, in the control step, at least one reserve additional path is allocated when packets are being distributed.

19. The wavelength path allocation method according to claim 14, wherein, in the control step, at least one reserve additional path is allocated when packets are being distributed.

20. The wavelength path allocation method according to claim 15, wherein, in the control step, at least one reserve additional path is allocated when packets are being distributed.